

VIRGINIA WILDLIFE

APRIL 1997

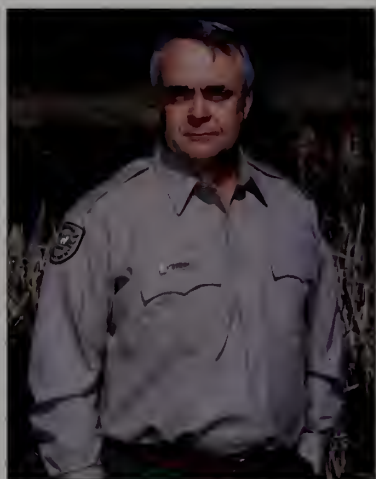
ONE DOLLAR





Director's Column

William L. Woodfin, Jr



Lee Walker

Hunters Prepare for Spring Turkey

Big game harvest numbers for the 1996-97 season are in, and they compare favorably to recent years. Harvests have been much higher than most people could have anticipated a decade ago.

	1994-95	1995-96	1996-97
Deer	209,373	218,476	207,560
Bear	522	602	602
Turkey (fall)	14,681	11,130	11,870

Those figures reflect good habitat and wildlife management, and they demonstrate that hunting remains a grand tradition enjoyed by many Virginians. With those successes in mind, many of us will now turn our attention to spring gobbler season.

Spring turkey hunters in Virginia have enjoyed tremendous hunting during the past few years. Virginia's spring harvest jumped an astounding 43 percent from the 1993-94 hunting season to the 1995-96 season—from 8,981 to 12,895 birds. These harvest numbers result from good hatches, good mast crops and VDGIF's sound wildlife management practices.

More important than the number of turkeys harvested is the em-

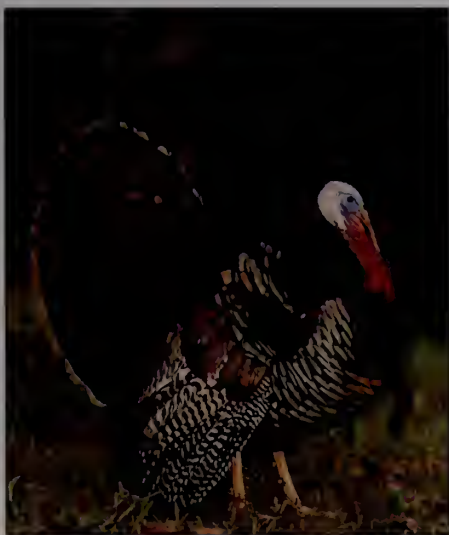
phasis we must all place on safety. The key to a successful spring season is hunter safety and obeying wildlife laws. Unfortunately, accidents sometimes result when a few irresponsible hunters disregard or disobey the law.

The most dangerous violations during spring gobbler season are the failure to identify legal game before shooting, the reckless handling of firearms, or the attempt to take game during illegal hours. For the most part these laws are observed, and we appreciate all the ethical hunters who are doing their part to maintain hunting as an enjoyable and safe recreation.

The 1997 spring gobbler hunting season opens statewide on April 12 and runs through May 17. Shooting hours are from one-half hour before sunrise until noon each day. A 1996-97 state hunting license is required, along with a bear, deer and turkey license. The bag limit is one bearded bird per day, and no more than two per season.

We hope you have a good spring gobbler season, and we urge you to hunt safely.

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Back cover: photo ©Dwight Dyke*

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Dedicated to the Conservation of Virginia's Wildlife and Natural Resources



©Lynda Richardson

Pools of water
that dry up by
summertime
are important
habitats
for many
amphibians.



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This is the largest representative of a group of salamanders called ambystomatids, after the generic name (*Ambystoma*) that unites all these species. These amphibians are united in more than by what taxonomists call them. They all breed in small bodies of fresh water called vernal, meaning spring, pools that fill up in winter and usually dry up in the summertime. These ephemeral bodies of water are small, ranging

from only a yard or so across and inches deep to 150 yards in diameter and several feet deep. Vernal pools are natural depressions in the landscape, like sinkhole ponds. Man-made depressions, like low places in dirt roads or tire ruts in fields and logging roads provide additional breeding sites for these and other amphibians.

The tiger salamanders we were monitoring for the George Washington National Forest were laying eggs in a vernal pool about 40 yards in diameter that went bone dry four months later. The aquatic larvae had to grow fast enough to reach metamorphosis before the pool completely dried. In some years of the study they made it but in others they did not.

The dynamic nature of vernal pools is a consequence of rainfall patterns since the source of water is surface runoff or seasonally high groundwater tables. This fluctuating and often ephemeral aquatic environment offers challenges to the animals and plants that utilize this habitat. Some are so adapted to the changing water levels that they occur nowhere else.

True vernal pools in much of Virginia and in states to our north support an assemblage of species that seldom breed anywhere else. These obligate species include all the ambystomatids, wood frogs (*Rana sylvatica*), and fairy shrimp. The latter are transparent crustaceans that hatch from dormant eggs in the soil

nole

Bottom left: A northern cricket frog (Acris crepitans) surveys his drying domain; photo ©Lynda Richardson.

Top left: Natural vernal pool in the process of drying. Above: Eastern tiger salamander, an early winter breeder. Below: The wood frog is one of the first frogs to mate and lay eggs in late-winter.

by Joseph C. Mitchell

We were all knee deep in water. A layer of ice on top of the pond had to be broken so we could peer into the cold pool below. It was January and the air temperature that winter night was not much warmer than the water. We were all bundled up in layers of clothes with waders, headlamps, and dipnets. But despite the winter's cold, we were all feeling lucky to be catching one of Virginia's most elusive animals, the tiger salamander (*Ambystoma tigrinum*).

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when the pools fill up from winter rains. One can determine if a small body of water is a vernal pool simply by the presence of different combinations of these animals. Obligates are characterized by the fact that none can breed successfully in ponds with fish. These predators eat salamander eggs and larvae and, of course, the fairy shrimp. Ponds that go completely dry in summer lack fish.



©David Liebman

Numerous other aquatic habitats act like vernal pools if they hold water in spring and dry up each summer. Other species of amphibians, like spring peepers (*Pseudacris crucifer*), breed in these places but are not considered true vernal pool obligates because they can sometimes breed successfully in ponds that support fish populations.

The chronology of amphibians in ephemeral pools in Virginia starts with the September migration of marbled salamanders (*Ambystoma opacum*) from terrestrial retreats to the dried-up pond bottom. Males arrive first during rainy periods and lay down spermatophores (packets of sperm on top of

half-inch gelatinous stalks) on the substrate. When the females arrive, the males engage in courtship behavior. Each male entices a female to walk over one of his spermatophores and pick up the sperm packet in her cloaca. Fertilization is internal. Females seek shelter under logs or piles of leaves and sticks, lay their eggs, and stay with them until the pool begins to fill with water. Once the eggs are inundated, they hatch.



©David Liebman

The females then leave the pool and return, like the males before them, to underground sites in the nearby forest. The eggs soon hatch and the aquatic larvae remain in the pool throughout the winter.

Winter rains bring out the other ambystomatids. Tiger salamanders are well-known for breeding in the coldest months. They enter the water-filled ponds in January and February, sometimes walking across ice to get there, where they mate and lay eggs. Once that occurs, the adults return to their terrestrial hideaways. The eggs and larvae are left to fend for themselves.



One result of marbled salamander larvae being in the pond for two to three months prior to January or February is that a lot of tiger salamander eggs and larvae are eaten. The carnivorous marbled salamander larvae are large enough to eat tiger salamander larvae for about four to six weeks. However, tiger salamander larvae, which are also carnivorous, grow faster. Later in the spring they are larger than the



K.T. Nemuras

Above left: Spring peepers, small members of the treefrog family, are harbingers of spring. Above center: Marbled salamanders with some pattern variation breed in pools in the fall when the ponds are dry. Above right: Larval marbled salamanders overwinter in vernal pools after winter rains replenish water levels. Below left: Upland chorus frogs breed in very shallow pools in late winter; photo ©David Liebman.

marbled salamander larvae. The result is that the table turns on who is eating whom.

Jefferson salamanders (*Ambystoma jeffersonianum*) exhibit the same breeding strategy as tiger salamanders but these amphibians are found mostly in the mountains. Spotted salamanders (*Ambystoma maculatum*) occur throughout much of the Commonwealth and breed a few weeks later than tigers and Jeffersons. In the southeastern portion of the state where the climate is a little warmer, Mabey's salamander (*Ambystoma mabeei*) is known to breed as early as December. Actual dates of migration, mating, egg laying, and hatching depend on the weather. Cold spells cause movements and development to slow down, and warm weather to speed them up. In general, however, all egg laying is completed by the end of March, after which the adults can no longer be found in water.

Overlapping in time with the salamanders is a group of frogs that also use ephemeral pools for breeding in late winter and early spring. The first to appear throughout much of the state is the upland chorus frog (*Pseudacris feriarum*). In the southeastern quarter of the Commonwealth, the Brimley's chorus frog (*Pseudacris brimleyi*) takes over. These two species overlap in a zone between Richmond and Suffolk.

These little, striped frogs lay 1-2 inch masses of eggs in clear jelly attached to blades of grass in very shallow water. Females are present only on a few nights early in the breeding season (late



February through March, depending on the weather) but the males can be heard calling for several weeks during this period. Chorus frogs breed in the shallowest of ephemeral pools. All they need are a few inches of water and some dead grasses.

Wood frogs, which occur in the mountains and parts of the Virginia Piedmont, also have a very short breeding period and utilize shallow water habitats. They avoid completely any aquatic habitat that has fish. Unlike other frogs, wood frog females congregate to lay large masses of eggs in a shallow, communal area. This behavior has a distinct advantage because the jelly in which the eggs are encased maintains temperatures several degrees warmer than that of the surrounding, and often cold, water. Tadpole densities can be enormously high.

Many people recognize the call of the spring peeper as one of the sounds of nature awakening from winter. The single, high-pitched "preep," repeated and offset with others in the chorus, can be heard throughout the state. This small frog has an extended breeding period



Top right: Spotted salamander egg mass with developing embryos; photo by Joseph Mitchell. **Top:** American toads require warm rains in late-winter to bring them out of underground retreats. **Above:** Jefferson salamanders are mountain animals in Virginia that breed in winter.

over much of March and April. Females lay single, unattached eggs among dense vegetation in shallow water of ephemeral pools and larger ponds.

American toads (*Bufo americanus*) breed in the same shallow water habitats as chorus frogs and wood frogs in March and early April. Males will call from the edge of the pool to attract females immigrating from underground retreats. There are usually more males than females on any given night and the females are often besieged by several males seeking successful reproduction. Groups of males trying to mate with a single female is a common sight on prime breeding nights. Long strings of black eggs encased in clear jelly is

a tell-tale daytime sign of toad orgies.

One thing that amphibians who breed in vernal and other types of ephemeral pools have in common is a short larval period. The larvae of the species noted in this article usually reach metamorphosis before the end of summer and often much sooner. Tadpoles of chorus frogs, wood frogs, and American toads grow from eggs to metamorphosis in a few weeks, reflecting their adaptation to very shallow pools of water. Spring peeper tadpoles take about 6-8 weeks and ambystomatid larvae will take up to five to six months. Other species of amphibians that require more permanent water, like bullfrogs, will take much longer to develop.

An obvious disadvantage in living in a pool of water that will dry up in summer is that if you do not make it out in time, you will die. That is one of the risks these amphibians take when selecting such ephemeral breeding sites. There are ways, however, of dealing with the risk. One of the life history characteristics of some, but not all, of these animals is that they are long lived. Ambystomatid salamanders live between 10 and 20 years in nature and even longer in captivity. Adult males and females breed several times during their lifetime. Multiple bouts of reproduction increase the chances that some of their offspring will survive to replace them in the population. All it takes is for two in-



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Above: Spotted salamanders and numerous egg masses in the shallow water of a vernal pool. **Left:** An adult spotted salamander; note the moist, sensitive skin characteristic of most amphibians; photo by K. T. Nemuras.

Opposite page left: Eggs and recently-hatched tadpole of the wood frog.

Opposite page right: Brimley's chorus frog of southeastern Virginia. **Opposite page top:** Mabey's salamander, another winter breeder in southeastern Virginia.

dividuals, one male and one female, to survive to reproductive age to replace their parents and keep the population stable.

This does not work as effectively for frogs because these amphibians are shorter lived. Small frogs may live only one or two years and often have only one chance to mate and lay eggs. Very few toads live past three years of age. The result for the population is that in good years the number of individuals is high and in bad years (say, during periods of drought) the numbers are low. Population sizes fluctuate up and down dramatically. In contrast, adult ambystomatid salamander populations oscillate less, although there is still wide variation in the numbers

quantities by salamander larvae and other aquatic insects and their larvae. Dragonflies, which are abundantly found in these habitats, are voracious predators of mosquitoes. Natural, intact, and functional vernal pools yield small numbers of adult mosquitoes. If the salamander and predatory insect larvae are somehow eliminated, then mosquitoes will become a problem for humans nearby.

The dynamic interactions of the many players in the ecology of vernal pools, the predators, the prey, and the variation in pond hydrology, all make this habitat a natural classroom. At least one state, Massachusetts, recognized this fact and has found a way to certify vernal

salamanders with bright yellow spots in your flashlight beam? Where else can you witness the rites of spring in the intense songs of diminutive frogs intent on making a new generation? Such places are important features of our natural landscape. With care, we can assure that



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of offspring that make it into the population as new recruits.

Vernal pools and other ephemeral wetlands are thus critical habitats for these highly seasonal amphibians. Their value as important sources of our natural diversity has often gone overlooked because of the unjustified reputation these pools have had as breeding sites for mosquitoes. The larvae of these pesky insects are consumed in vast

pools and the adjacent terrestrial habitats as special education and conservation areas. It started with a group of interested high school students who developed a statewide education program. Private efforts to do something similar in Virginia are under development.

Ephemeral aquatic habitats such as vernal pools teem with native nongame wildlife. Where else can you see spectacular eight-inch black

they will be available for our next generation to wade in knee deep and witness their elusive inhabitants. □

Joe Mitchell teaches conservation biology at the University of Richmond and is the author of The Reptiles of Virginia.

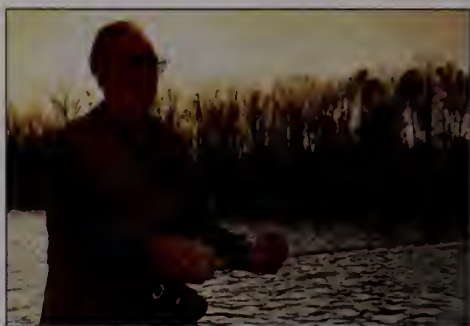
Look for a companion article on vernal pools in a summer issue of *Virginia Wildlife*.

Worth Their Weight in Gold

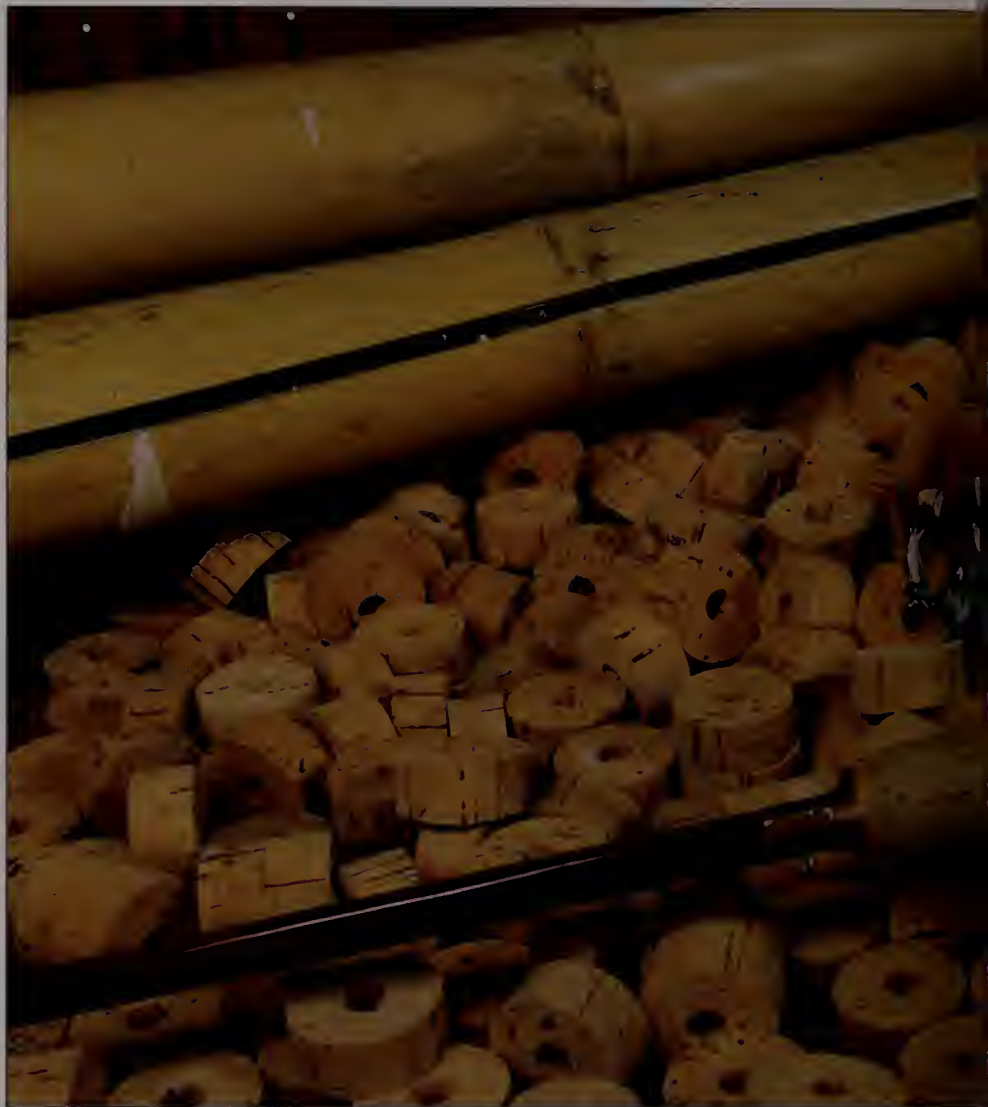
by

Carlos Santos

Photos ©Dwight Dyke



Carlos Santos is a familiar newspaper byline in Central Virginia, but in this article prepared for Virginia Wildlife he demonstrates that reporters can have outdoor passions too.



I've built 49 bamboo fly rods in the decade or so I've spent tinkering, obsessing, and sweating over this almost forgotten craft.

In the recesses of my basement I've built standard trout rods, light salmon rods, tiny, 4 foot, 4 inch banty rods, one piece rods and even a spiral rod who's action is too weird to explain. I've got a one-weight rod I built that has a tip about half the size of a pencil lead. It casts the tapered, tiny, one-weight line like a bullet.

I love building split-cane rods. It satisfies my need to build something both beautiful and useful. I like the soft luster of bamboo and the live

feel of the fibers as they load under the weight of the line. No rod better telegraphs the optimum time to forward cast. No rod is prettier.

But then I also like bamboo for its heft, its tradition and out of pure contrariness against all the plastic, machine-molded stuff swamping the world. Building cane rods, a lovely relic of the 19th and early 20th century, is my personal raspberry to the coldness of progress.

I'm sorry hand-planed bamboo rods cost so much—around \$1,000 on average for a standard, two tip rod. It's their only drawback. I wish it weren't so. It just takes a lot of time, a lot of sweat and a lot of personal attention to build a good one.



Left: From bamboo culm to split cane fly rod. A light salmon bamboo fly rod sits on a bed of Portuguese cork rings. In the background are two culms of Tonkin cane which grows only in China. The culms are painstakingly fashioned into fly rods in a process that takes 50 hours. The cork rings are fashioned into the rod's grip. Below: Here the author splits a culm in half using a wood mallet and a Japanese style knife. The culm is usually shipped to the rodmaker in 12 foot long pieces. Above: Using a propane torch with a special tip, the rodmaker flames the entire outer section of the culm. When the rod is completed, its color will be a beautiful "flamed" brown. The culm can also be left unflamed to produce a natural blond color.



Only Tonkin cane, *Arundinaria amabilis*, which translates as "the lovely bamboo," can be used to build bamboo fly rods. Only Tonkin, found only in a 20 square mile area in southern China, has the proper tensile strength in its fibers necessary to cast well. Other types of bamboo, like the bamboo groves found anywhere in Virginia, just won't work. Tonkin cane can still be imported from China through a New Jersey dealer, though I stumbled onto some of the rare, pre-World War II stuff.

It takes about 50 hours for a basement rod builder like me to build a two-tip, two-section fly rod. At the end, I know each rod—node, flat and finish—like a good friend. Even companies which produce quality bamboo rods, such as Orvis, can't compare to a top-notch hand-made bamboo rod.

There are numerous steps involved in turning a stalk of bamboo into a fly rod. Though it's really not that difficult, the complete process is almost impossible to fully explain here, however, this will provide a broad overview. The best book ever written on the subject is titled *Building a Bamboo Fly Rod*, by Everett Garrison, the father of basement rod builders. The book, the bible of rod building, is almost 300 pages long.

The bamboo stalks come in 12 foot sections for rod building and are called culms after they are cut. The butt of the culm is used to build the butt of the rod and the tip of the culm for the tips. Most culms are about 1½ to 2½ inches in diameter at the butt and taper slightly to the tip.

The brown "power fibers" are sandwiched between the outer, hard enamel of the culm and the white, useless pith. The finished rod blank will essentially consist of nothing but these power fibers.

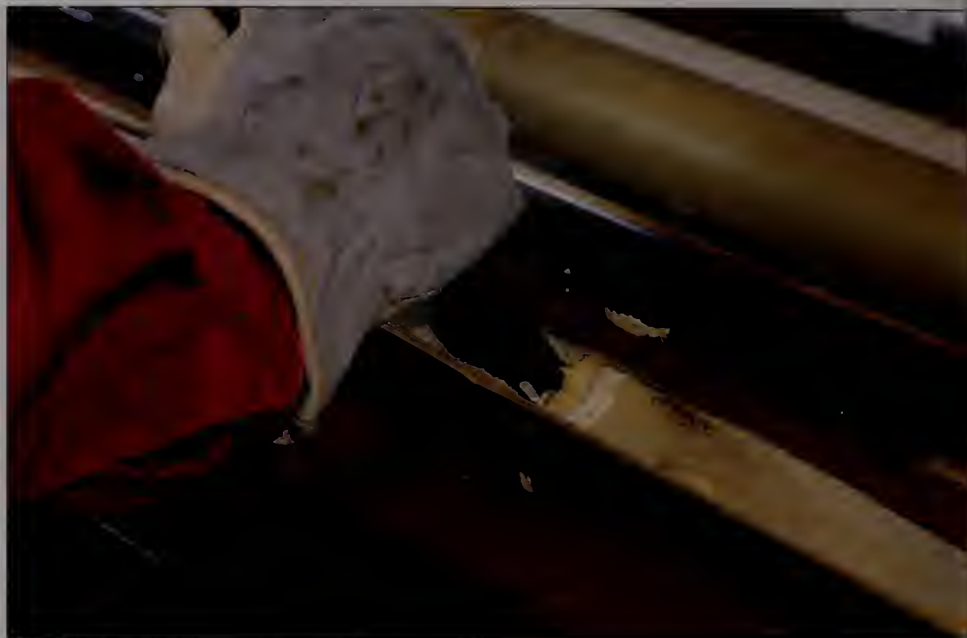
It helps to remember that a bamboo fly rod is a long, tapering hexagonal. It also helps to remember to use gloves—bamboo is nasty stuff to work with.

I need 18 splines to fashion into a two piece, two tip rod. Bamboo fly rods traditionally came with an extra tip so no valuable fishing time was lost in case of tragedy.

I start off by cutting the 12 foot long, seasoned culm in half. I then split out the 18 sections using a knife for the initial rough splitting and then a pair of screwdrivers, hammered into the bamboo and used as a wedge, for the final splitting. Bamboo splits fairly evenly.

Six of the now flat sections will be used in the butt of the rod with six for each tip. The butt strips will measure about 7/32" in width. The tip strips will measure about 5/32" in width.

The strips must be staggered to isolate the nodes. The nodes, formed by branches, are similar to knots on a tree. The idea is to prevent nodes, which are the weakest part of the rod, from lying adjacent to each other on any of the six flats of a rod section.



Once the staggering is done, the length of the strip is determined by the length of the rod desired. The strips for a seven foot rod, for example, would be about 42 inches long. The strips can be cut to size with any fine-toothed saw.

Top: The inside dam of the culm, which supports the bamboo stalk as it grows, is cut out using a special chisel. Above: Using a screwdriver, the rodmaker splits the half-culm into six pieces. Once the screwdriver is driven into the culm, the culm is forced into the screwdriver, forcing the split. When everything goes right, the culm usually splits very evenly.



Above: Six pieces of the culm, each about the same width, are displayed. Each of the sections will be split again into finer sections. Each section will be used to make the six sides of the finished fly rod.



Left: Using a souped-up Stanley plane, the rodmaker planes a culm section which is held in a steel planing form. The planing form, a sort of giant micrometer, allows a finished bevel of 60 degrees to be planed into each section. The final planing is done to tolerances of 1/1000th of an inch.

The nodes are filed down slightly with a wood file. The nodes are then heated—with a heat gun used for paint stripping—and compressed in a vise to flatten them. Luckily, bamboo is pliable when heated.

I now have 18 flat, node-staggered and node-flattened strips of the proper width for planing and of the proper length.

Now I'm ready to plane. This is where another art form comes into

play—sharpening a plane blade. There's plenty of good books on sharpening, but it mainly takes practice and sweat to get a surgical edge on a planing blade. You need it too. Bamboo is tough stuff. Don't let its reputation as dainty, delicate rod material fool you. I use an ordinary Stanley plane with a throat that allows me to adjust the cut to as fine as 1/1000th of an inch. I plane the soft white pith off the underside of the strips first.

There is one very special tool—a planing form—necessary to plane the cane strips to the proper dimension. The planing form is a five-foot length of cold-rolled steel with a beveled groove cut into the bars. Control screws set at five inch inter-



The finished rod, complete with varnish, guides, wraps, cork grip and reel seat is varnished and then buffed. Each rod is one of a kind.

vals allow the bars to be closed or opened by as little as 1/1000 of an inch. The bevels are made to cut bamboo strips that will have a finished bevel of 60 degrees. The planing form, which is actually just a giant micrometer, allows the planing of each strip into a finished spline at whatever taper decided on. The taper, of course, will determine the action of the rod. The planing form is set to the required depth with a depth gauge.

There are a few, small machine shops in the country who make these forms. I got mine made by a relative who is a machinist.

Planing the 18 strips into 18 finished splines is the ultimate test for a bamboo rod builder. Each strip must be perfectly planed without gouges, even at the tough-as-steel nodes.

It's not easy. A seven foot rod, for example, requires the flawless planing—conservatively—of 120 feet of edge. Any flaws in the planing will show in the finished rod.

Once the planing is done, the delicate strips, now called splines, must be heat treated. Heat toughens the bamboo even more, just like putting a stick in a fire for a while hardens it. I have a homemade oven, built from ductwork and a five-foot heating strip, which allows me to cook the splines like porkchops—360 degrees, though just for a few minutes.

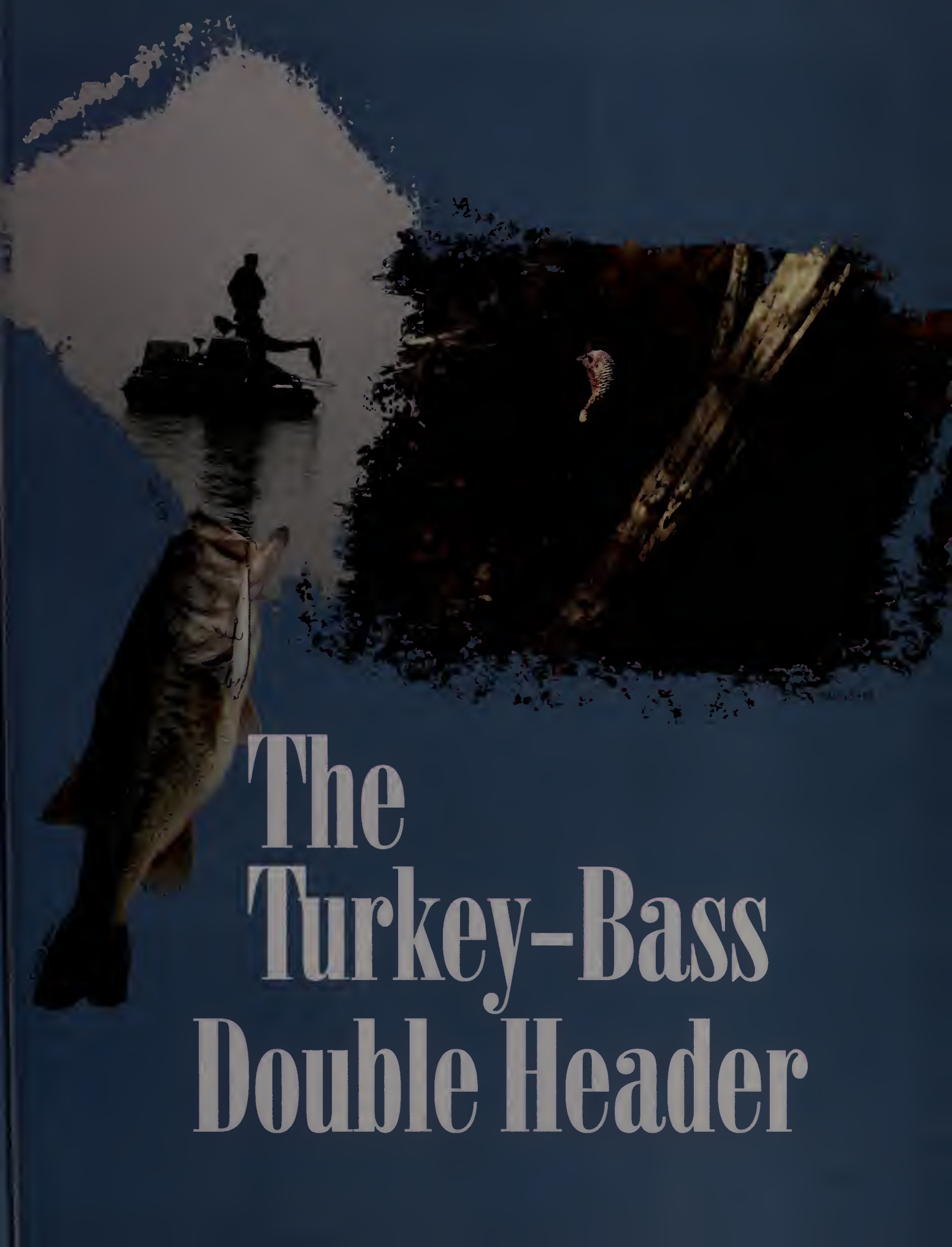
After heating, the splines are glued together into the hexagonal blank. I use a waterproof, craze resistant industrial glue called URAC 185—used to glue together marine plywood. I slap the glue on the finished splines liberally. Some rod builders simply wrap the splines with string by hand. I use a homemade binder which wraps a little more scientifically.

After the glue is dry, I have a rough blank for the butt and one each for the tips. The surplus glue and the hard outside enamel of the bamboo are scraped and sanded off. The blanks are straightened by heat

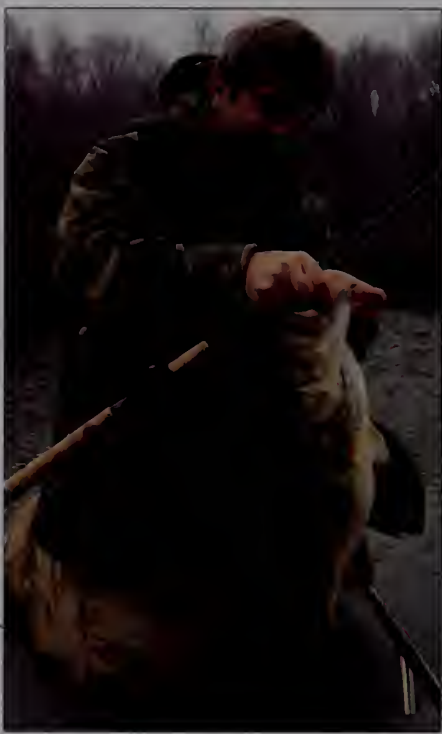
and a sharp eye. Finishing the rod—putting on cork, seats, guides and ferrules—is similar to building graphite rods. Perhaps the only difference is that metal ferrules are glued on. I use nickel silver "Super Z" style ferrules made by a Vermont craftsman. I finish the rod with five coats of hand-rubbed varnish.

When the rod's done, I fondle it, cast it, and, usually, feel pretty darn good. Each new rod is a personal victory in keeping the craft alive.

Not that I'm worried. I think cane rods will keep being made as long as there is fishing. I know bamboo will survive graphite, boron and whatever plastic molecules are waiting to be thrown at us poor fly fishermen in the future. Each hand-made bamboo rod is unique, stamped with the maker's soul. A cane rod is a tradition, a creation, a perfect casting tool and belongs on a mountain stream. That's the secret, I think, of the long life and the happy future of the bamboo rod. □



The Turkey-Bass Double Header

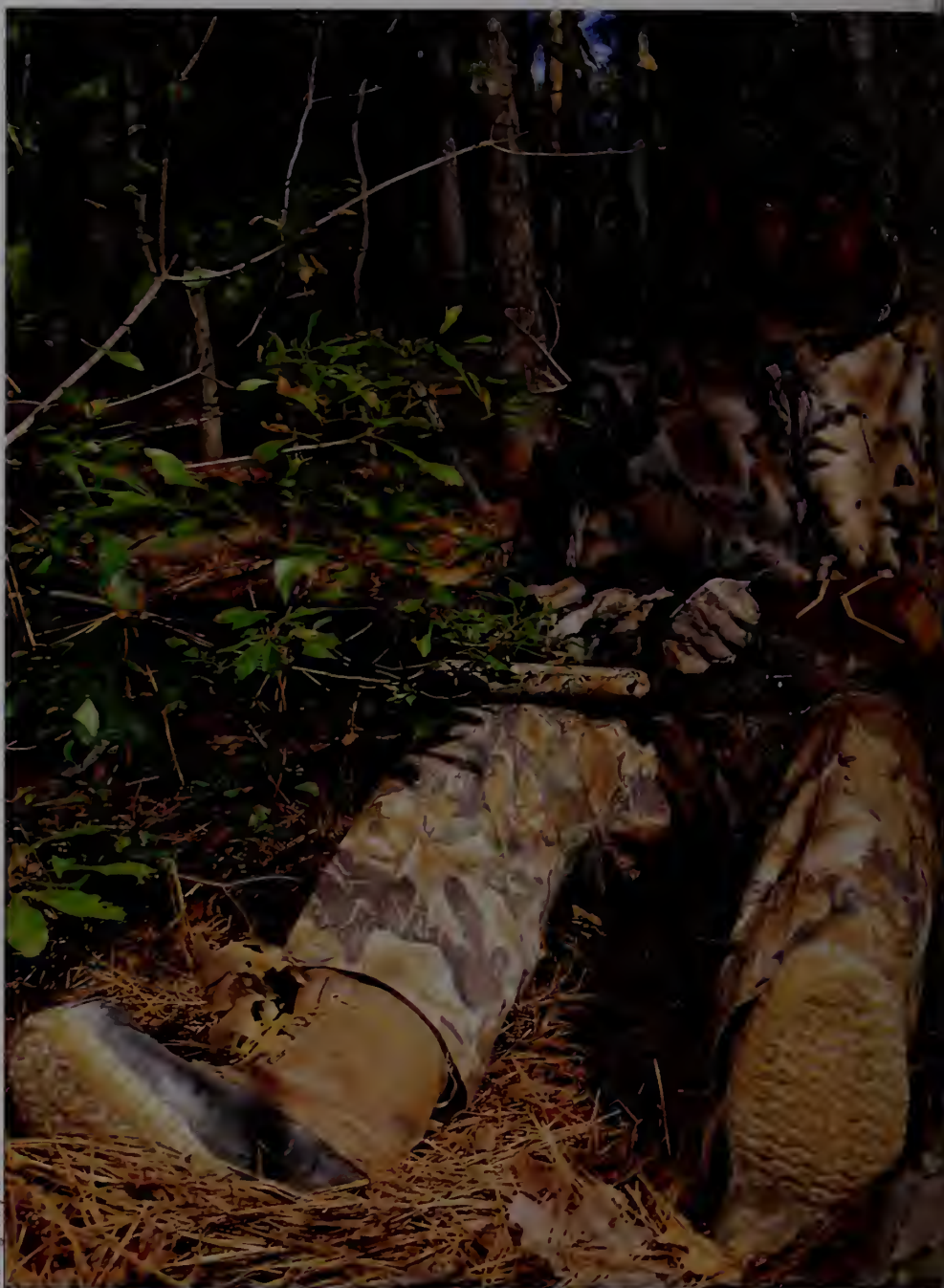


by Gerald Almy

Over the years I've always been intrigued by the idea of hunting and fishing combination trips. I've been fortunate to enjoy many of these over the years, seeking caribou and lakers in the Northwest Territories, grizzly bear and salmon in British Columbia, elk and trout in Wyoming, and other exciting combinations.

But one doesn't have to travel so far or spend so much time and money to enjoy high quality fishing-hunting combo trips. With spring gobbler season open during much of April and May, turkey hunting and bass, trout or panfishing combination trips make for a great way to spend an intense and rewarding day or two afield in Virginia.

You also increase your chances for enjoying at least some success on the outing this way. If you don't bag a turkey, at least you probably will catch some fish, since most species are shallow and feeding heavily at this time of year. And if for some reason the gamefish don't cooperate, perhaps you'll harvest a nice gobbler. Turkeys are plentiful throughout almost the entire state of Vir-



ginia, and their numbers are increasing now thanks to restrictions on fall hunting instituted last year that are designed to significantly boost the population.

Recently I set up such a mixed-bag trip for the central part of Virginia. The largemouth bass was the finned quarry I chose for the combination fishing-hunting adventure. But I didn't want just any bass. I set my sights particularly high. I fo-

cused on catching a trophy bass—eight pounds or better, and then bagging a gobbler. To make the challenge even greater, I would attempt to meet these two goals within a 24 hour time frame.

This was all, mind you, just an internal goal—one that I told no one about. And I knew that I would enjoy the experiences of hunting turkeys and fishing for bass no matter what the results. Anyone who is



April is a great time for the outdoors in Virginia, and the "mixed bag" of bass and turkey is a challenge for anyone calling themselves a serious hunter or angler. The biggest bass are usually taken early in the season, and this spring's gobble season runs from April 12 through May 17.

only happy when they catch fish or harvest game usually gives up these sports early in their lives. After 35 years of fishing and 30 years of hunting, I'm a long ways from abandoning these passions.

For the fishing, chances of catching an eight pound bass were best at one lake—Anna. Last year this 9,600 acre lake southwest of Fredericksburg gave up 102 citation-sized largemouths, more than any other body of water in the state. Some 18 more than the next best lake—Western Branch. And besides these registered citations, many anglers also caught bass over eight pounds but immediately put them back in the water. That would be my decision if I was lucky enough to connect on such a trophy fish. It would likely be a female on the spawning beds and even taking it in to weigh it would make the chance of its survival and successful spawning less likely.

Several quality fishing guides work on Lake Anna. For this trip I chose Glenn Briggs, of Bumpass, Virginia. Glenn had put one client—Greg Martin, of Winchester—onto two citation bass in one day a few weeks earlier. One of those fish tipped the scales at 8 pounds, 3 ounces, the other weighed 8 pounds, 2 ounces. Both were returned to the water unharmed after being weighed.

The 24 hour fishing-hunting combination I planned would officially start at noon one day and end at noon the next day. When I met Glenn at the marina at 12 o'clock sharp, instead of trying for bass, he suggested we go after stripers for an hour or two. He had seen a large school breaking right across from High Point Marina that morning.

I love striper fishing and agreed, feeling we'd still have plenty of time to catch a trophy bass before the afternoon was out. Glenn showed me a unique umbrella rig he was using with five Sassy Shads rigged on 18-24 inch leaders. With a two-ounce weight at the center of the umbrella prongs, the rig would run at 18-24 feet—prime striper territory.

We trolled for 90 minutes, but the stripers must have moved on. Not a single fish struck. Heading down lake, we turned to largemouths next.

"I saw two fish spawning in shallow water yesterday that I know would go 8 to 10 pounds," Glenn said excitedly. That got me fired up, to say the least. But today, as a northeaster blew in hard and leaden clouds brought sporadic bursts of stinging rain, we couldn't find the fish. We probed the whole creek looking for the big spawners, but we never did locate them or any other fish, except for a pair of husky crappies. The falling barometer and approaching storm front may have had the bass off their feed.

We moved to another favorite early season spot of Glenn's next and began casting anew with the Smithwick Rattlin' Rogue suspending baits. We would throw them up close to shore, twitch them two or three times sharply with the rods, pause, reel a short ways, twitch again, then reel slowly. It's a system that has been deadly of late for big Lake Anna bass—when they are in the mood to strike.

Ten minutes after we started fishing the cove, I found one such fish. Suddenly between jerks, there was heavy weight. Was it a log or a large fish? I didn't know for several seconds, but reeled hard anyway just in case.

It was a fish! The heavy bass came to life when it felt the sting of the hook and lept clear of the water in a spray of silver droplets. The fish was big, but I didn't want to get too excited and make a mistake, so I estimated it at five pounds.

"He's bigger than that," Glenn said as he waited with the net. The fish bucked hard and tried to jump again, but I pressured it down with

the rod and halfway contained this leap. Finally, after more heavy-duty bulldogging, I pumped it in close and Glenn expertly scooped the fish aboard.

It was citation-size for sure, measuring well over 24 inches. The fish was extremely fat and full of eggs. (A biologist later said it would weigh about 8¼ pounds.) After a few quick pictures, we released the bass and watched as she swam strongly back into the lake. Glenn had one other bump that afternoon, but that beautiful bass and the pair of crappies were to be our only catches of the day. Normally Glenn expects to take 4-12 bass in an outing, but that 8 pound-plus fish was all I needed on my way to a great double-header.

Calling it quits when the rain became stronger and winds whipped whitecaps across the lake, I headed east, to one of the wild turkey's newest strongholds in Virginia—the Northern Neck. Tomorrow morning I would seek out an elusive gobbler.

With a bass over eight pounds caught and released the afternoon before, I really considered the 24 hour fishing-hunting trip I had embarked on a success already. The fish had fought hard, clearing the water in a stunning leap. Best of all, it was still in the lake laying eggs and raising another generation of bass.

In some ways I wished that turkey hunting could also offer the catch-and-release option. Chuck O'Bier, a charter captain on the Chesapeake Bay, told me that "if they could just drop their beards when I called them into shotgun range, I'd let them go."

It's a sentiment many veteran turkey hunters share, and sometimes it leads us to pass up birds that have been called within range. But this morning I would try to harvest a gobbler as I joined Chuck to hunt in his home turf—the turkey-rich Northern Neck of Virginia.

I'd debated calling off the hunting part of the trip after fishing Anna because of strong winds, rain, and a tornado watch that night. But I went ahead, and luckily, the weather moderated a bit. As we drove out to

the farm we would hunt, only a light rain fell and the wind had slacked off. With just a drizzle coming down, we left our raingear in the truck.

Chuck had bagged a 20 pound gobbler the morning before after striking out on opening day. After he'd taken his bird, he checked out an area where he wanted to take me and saw a heavy tom strutting in a wheat field with several jakes and hens.

We set up in the dark where he had seen the turkeys, positioning a decoy in the wheat field and hunkering back in the adjoining woods to wait. When a dark, stormy dawn finally marched in, no birds gobbled where Chuck thought they would be.

Owling expertly to try to stir them up, O'Bier drew several responses from aggravated toms. But they were all across the farm lane in another patch of woods!

We quickly picked up the decoy and headed that way. As we ap-



Lloyd Hill

proached the area where the birds had been gobbling, Chuck suddenly motioned me to stop.

"They're in the far corner of the field. Drop down."

Slowly placing the decoy in the ground where we stood, we eased back to the edge of the woods and set up. There were two bushes, ten feet away, one on either side, that I didn't like being behind. But the birds were close and this was the only option we had.

Chuck called on his diaphragm and soon not one, but two big toms bellowed back. Eventually the turkeys worked into view and we could see two nice gobblers, four or five younger toms and half a dozen hens.

Neither of us held out a lot of hope that we could call the males away from these hens, but Chuck tried, calling with yelps and clucks and occasional cutting. The birds responded loudly, but stayed with the hens as they moved across the field well out of shotgun range.

The rain came down in sheets now—not surprising since we had left our foul weather gear in the truck. Soon we were both drenched, but at least it was fairly warm. At one point the downpour was so strong you could see the toms gobbling barely 150 yards away but couldn't hear them because of the force of the pounding rain.

As the birds headed up a far hill into some brush, another tom appeared, slightly smaller than the two biggest birds. He slowly eased towards us, closing to within 50 yards when he suddenly disappeared in my line of vision behind one of the two small bushes I had worried about.

As I strained to make out the tom where he would likely step out from behind the brush, Chuck whispered that the two big birds had snuck back and were in range—about 40 or 45 yards to my right.

I'd been concentrating so hard on the lone gobbler that I hadn't looked that way. But when I did, the second

bush was blocking my view of these birds! Three gobblers—one almost in range, two in range—all blocked by the only two bushes around.

I knew I couldn't move or the birds would flee, so I waited and hoped they'd move into the clear. But alas, the toms grew leery and all three trotted back after the real hens.

Disappointed that I didn't get one of the toms, but thrilled with the sight of strutting birds and the sound of the dozens of gobbles we'd heard, we headed off to check out another wheat field. Maybe the big toms would work over there.

When we arrived, two gobblers in response to Chuck's calls indicated that they had. The birds were in the corner of this field, and less willing to answer our yelps and clucks now. But they didn't spook and leave, either. As we debated what our next move should be, suddenly another group of birds with several toms appeared in the field to our right.

This was a different bunch. Amazed at how many turkeys eastern Virginia had, I slowly shifted my position towards this flock, which had turned and was now easing towards Chuck's calls.

The lead tom was not as heavy as the two we had called in earlier, but it was after 9 a.m. now and those birds did not seem to want to come in, so I decided I would try for the biggest of these turkeys if they came into clean range.

At 40 yards, the closest and largest tom extended its neck, looking for the hen he was hearing. With the 12 gauge aimed at his head and neck, I squeezed. The magnum load of 6's found their mark and the bird dropped cleanly to the ground. Twenty-one hours into the bass-turkey combination trip, the second quarry was ours.

It had been a rich 24 hour trip and solid testimony to the quality hunting and fishing sport Virginia offers. Why not try a similar combination yourself this spring? □

Gerald Almy has been a full-time outdoor writer for more than 19 years. He is currently a hunting and fishing editor on the staff of Sports Afield.





On The Water

by

Carol Mawyer

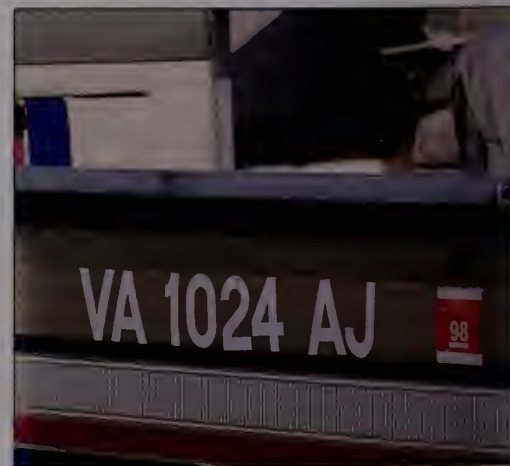
Photos ©Dwight Dyke

The feel of being on the water...the serenity of dropping a line over the side of a 10-foot johnboat and waiting for a bass to bite...the rumble of a finely tuned inboard motor...the rush of jumping a Mastercraft's wake on a pair of skis....

The onset of spring brings one or more of these images to the forefront of every boater's mind. Recreational boating has become a popular form of entertainment for many Virginians. More than 144,000 residents have boat titles; 230,000 hold active registrations. And when warm weather arrives, these folks are eager to put their boats on the water!

"There's more to getting out on the water than simply hooking up the trailer and putting in at your favorite landing," said Officer Joe Pajic, a game warden in Henrico

County who works in a high use area of the James River below Richmond. "In order to have a safe boating season, the boat owner needs to make sure both his boat and trailer are in good working order and properly equipped.



The Trailer

Officer Pajic advises checking lights, wiring and connections before every excursion. The cable and tie down straps should be examined periodically to be sure they are in good repair. The trailer's axle and wheel bearings should be greased once a year. A current registration and license plate for your trailer must also be obtained from the Department of Motor Vehicles before the trailer is ready. It is also a good idea to carry a spare tire.

The Boat

Readying the boat is a bit more involved. Now is the time to complete any necessary repair work. "Once the craft is on the water, you'll be less likely to fix what needs to be repaired," Officer Pajic says. "Water takes its toll on a boat, and a minor problem such as water seepage into a lower unit can quickly become a big one." If complicated work is required, take your boat to a shop or dealer qualified to work on your type of vessel.

Check to make sure your Certificate of Number (registration) and decals are current. Boat owners must renew every three years. Virginia State Law mandates that the registration number be clearly affixed to both sides of the forward half of the vessel in three-inch-high block letters in a solid color that contrasts with the hull. The registration numbers can be painted on or adhesive characters may be purchased from boat dealers or sporting goods stores. Once a vessel has been assigned a Virginia registration number, it must never be removed as it is the identifying number of that vessel and is transferred to the purchaser when ownership changes. A validation decal must be displayed

As with hunters, the first concerns of boaters must be for the safety and welfare of those with them and others out enjoying the day's recreation. With more than a quarter million active boat registrations in Virginia, it is increasingly important to watch out for the other guy. Above left: Officers Joe Pajic (left) and Chris Day prepare to inspect another watercraft. Below left: Registration numbers are permanent fixtures on Virginia boats, as the numbers will be transferred to the new owner if the boat is sold.

within six inches of the registration number. The operator must carry a Certificate of Number (registration) on board at all times the boat is being operated on state waters.

Personal Flotation Devices

It takes more than having a rod and reel and a cooler stocked with cold drinks aboard before you're ready to back the boat down the ramp. "You'd be surprised how many people fail to bring along even the bare necessities when it comes to their safety," says Officer Pajic. The Code of Virginia lists specific requirements in the way of equipment.

ing it, and must have a United States Coast Guard (USCG) approved label (that's legible) on them," advises Officer Pajic. "Most importantly, PFDs must be readily accessible to those on board."



Type II PFD



Type III PFD

As of May 1995, U.S. Coast Guard approved wearable personal flotation devices (PFDs) are required for every person on board. Acceptable PFDs include Types I, II, and III vests. Type IV cushions or ring buoys are considered throwable devices and do not qualify as wearable PFDs. Type V PFDs (special use PFDs and hybrid inflatable life jackets) must be worn in order to be counted towards your required wearable.

"The PFDs should be serviceable (no broken straps), the appropriate size for the person wear-



Type I PFD



Type V Hybrid PFD

One of the problems many officers face when checking boats is the location of PFDs aboard the craft. "Wearable life preservers must be "readily accessible," not buried up in the bow where it takes the operator and passengers 10 minutes to get to them," Officer Pajic explains. "The best place to store your personal flotation device is on your person. In most times when there's an accident there isn't time to stop and put them on."

When the boat is not in use, proper storage of PFDs is an important issue. Most people get into trouble by storing life jackets in areas where there is fuel. Fuel fumes disintegrate the flotation material and render PFDs useless.

Specific requirements for personal flotation devices vary depending on the size of the vessel. For boats 16 feet or larger, the operator must

have one Type IV throwable PFD (a seat cushion or ring) in addition to one wearable PFD for every person on board. The throwable PFD must meet the same criteria as Types I, II, and III by being serviceable, having a legible USCG label and being readily accessible.

Wardens often get complaints when ticketing bass fishermen who are by themselves for not having a Type IV on board. Pajic recounts, "They ask, 'Who am I going to throw it to?' We stress that it is their duty to be able to help other boaters. The purpose of having a Type IV on board is not only to assist yourself, it is to assist other boaters if there is an accident."

Fire Extinguishers

Fire extinguishers are required on boats with permanently installed fuel tanks, closed living spaces, closed stowage compartments in which combustible or flammable mate-

Because safety is the captain of boating concerns, then proper equipment is the first mate. Different boats and various boating conditions have different safety needs; responsible boaters always have the right equipment on board, in good working condition. Pictured above; Type IV throwable PFDs. Bottom left; visual distress signals.

rial can be stored, double bottoms not sealed to the hull where fumes could accumulate and cause an explosion, and closed compartments under thwarts and seats where portable fuel tanks may be stored.

"Fire extinguishers are a good idea on every boat, no matter what the size, because you can't get out and walk," Officer Pajic points out. He adds that one of the most common causes for boat fires is the use of automotive parts instead of marine parts when making engine repairs. "Although a marine engine will often operate with the automotive part, inadequate seals increase the danger of sparks and an explosion."

Fire extinguisher requirements vary as do those for PFDs. Boats under 26 feet are required to carry one USCG approved Type B-1 fire extinguisher. Boats 26 feet to less than 40 feet are required to have at





Smart boaters know their craft and its engine. Getting stuck on the water without a way home is a hopeless feeling that can be avoided. But it can happen, and that's why you need visual distress signals, horns and a working radio.

least two Type B-1s or one Type B-2. Boats larger than 40 feet are required to have at least three or more Type B-1s or one or more Type B-1 and one Type B-2.

Other Equipment

Visual distress signals are required on boats operating on coastal waters and rivers that are at least two miles wide at the mouth up to the first point the river narrows to less than two miles. These signals include handheld or aerial red flares, orange distress flag (with black circle and square) floating or handheld orange smoke, and flares.

Efficient sound-producing devices include a horn, bell, or whistle. The purpose of these items is for signaling other boats of your navigational intentions. Although regulations do not require vessels less than 39 feet, 4 inches in length to carry a whistle, bell or horn, navigation rules require sound signals to be made under certain circumstances. Vessels 39 feet, 4 inches to 65 feet, 6 inches must carry a bell and a whistle.

A factory installed ventilation system is a must on boats with an in-board engine. Officer Pajic recommends that operators verify their blowers are in proper working order and check all hoses and fans.

The final requirement on board is a backfire flame arrestor, a device which fits over the intake to the carburetor and contains any spark or flame that might be produced when the engine backfires. It is important that these devices be USCG approved. Most marine models made of wire mesh, as opposed to automotive paper filter types, will meet this requirement.

The list of other equipment boaters might wish to take along, but which is not required by law, is endless. Officer Pajic suggests things such as a paddle or oar, a VHF radio or cell phone, an AM/FM radio, a bailing device and a 50 foot tow rope.

Lastly, before you go out on the water be sure to file a float plan with a family member or friend. "This

can be as simple as jotting down on an index card where you're going, the route you are taking, and when you'll be back," says Officer Pajic.

By taking the appropriate steps in readying your boat now, you can do your part to help make this year's boating season safe and pleasurable for you and others who enjoy Virginia's waters. □

Carol Mawyer is a freelance writer residing in Virginia.





Hunting spring gobblers is a challenge that has been enjoyed by hunters over the past years and things just seem to get better every year.

Each year when spring rolls around, Virginians recognize it in different ways. Some people look for flowers, and others watch for the beautiful dogwood in full foliage. But over the past 33 years winter officially ends and spring begins for me with opening day of spring gobbler season.

Virginia turkey hunters have trudged up oak ridges and eased through swamp thickets since 1962 when an experimental spring gobbler season was introduced in several test areas. Chester F. Phelps was

executive director of the Game and Fish Department in those days. Phelps "sold" the idea of hunting spring gobblers to a reluctant board of commissioners during the wild turkey restoration years.

In those early years the season was only a short six days. Preparing for my first spring hunt with one of my life-long hunting companions, we scouted my granddaddy's farm and found lots of turkey signs. Feeling very optimistic after our pre-season scouting trip, we built a blind for the hunt.

Some Things Never Change

by Denny Quaiff

ing to our efforts. Knowing that we must make the school bell on time we made the decision to move on the gobblers.

Most good hunters learn from their mistakes and this crash course in turkey hunting was a real learning experience for two teenagers. Stalking through the woods we flushed two big toms and emptied our shotguns, while watching the birds sail out of sight.

In 1963 the Game Department was very conservative, opening the new season in only 50 of the states 94 counties. Harvest data from records kept indicate that 284 bearded birds were taken the first spring.

Today, the season opens on April 12 and runs for five weeks. The bag limit is one bearded bird per day,

with no more than two birds taken during the season.

Let's take a look at some basics that could help enhance your chances for bagging a trophy gobbler this year.

Pattern Your Shotgun

To bring a wise ol' gobbler into shotgun range doesn't happen everyday. Take time before opening day and make sure that your shotgun will pass the test.

Pattern a variety of loads. Most manufacturers offer No. 2, 4, 5 and 6 shot that are excellent for spring gobbler hunting and fit within the Virginia game law requirements.

Hang life-size turkey targets at



© Dwight Dyke

When it comes to makeup, turkey hunters prefer a natural look (above). But nice camouflage may not be enough to bring home the turkey if you haven't put in enough shooting practice.

Remembering the eventful day my mother agreed to let me go with the understanding we would not be late for school. My first turkey call was a small box that was purchased through a mail-order catalog. The call was constructed of cedar, offering the high-pitch yelp of a young hen.

Hiding in our makeshift natural blind of small cedar and pine trees we heard our first gobbler sound off. Turkeys were gobblin' all around us. Taking turns with the box call we seemed to have the birds respond-



20, 25, 30, 35, and 40 yards to test your pattern density. Compare your patterns and decide on a load that consistently puts the most pellets in a turkey's head and neck area. This will provide you with confidence to cleanly bag a gobbler this season.

Practice Your Calling

You do not need to be a world champion turkey caller to hunt and harvest spring gobblers. Most spring turkeys will respond to the simple call of the yelp.

The plain yelp is used throughout the year. It is usually heard in three to five yelps, all at about the same pitch and evenly spaced.

Another important yelp call is the tree yelp. This is the wake-up call, softly used in a roosting area before loud calling is suitable.

One of the most effective and easy to master calls is the cluck. The cluck can easily be done with a slate or box caller. It will usually take three to four short sharp cuts on the call to illustrate the sound. This call will often bring an old tom the extra 30 yards needed for the shot. The cluck seems to reassure a gobbler that his hen is still there waiting.

The purr is another call often used by the spring turkey hunter looking for a magic trick. Plain old soft purring is excellent in the spring to draw a gobbler even closer. This call can also be easily made with one of the friction type calls by long slow strokes.

In my opinion the most important thing to learn about calling spring gobblers is when and how much to call. There is no hard fast rule for this. Many hunters call very little and others call a lot. Each hunt is different, and experience plays a major role when the hunter decides to make another series of calls.

I have read that the wild turkey has over 30 different calls and many of the pros can make them all. However, if you stick with the basics of calling you could be pleasantly surprised at the results.

Camouflage Clothing

I have heard stories of hunters that do not use camo clothes for spring gobbler hunting, but I am not one of them. Wild turkeys have the best eyesight in the woods and see everything that is not related to their surroundings.

Let me suggest camouflage clothing from head to toe. This should also include a head net and gloves for total cover-up. Remember to remain as still as possible and never move before looking over your entire hunting area.

Decoys

Decoys are another hunting tool that have become very popular over the past 15 to 20 years. I can remember the first one that I had any experience with was a full-bodied hen that we carried and stored in a green mesh bag. Everybody called her Henrietta and nobody ever accused her of being pretty. She was a lot of trouble to carry in and out of the woods, but fooled a lot of slick ol' toms before she was retired.

Today manufacturers have come a long way into the era of lightweight, lifesize decoys that are fully three-dimensional. The collapsible design makes the decoy easy to carry all day long. The stake support system of the modern day decoy

long discussions among veteran turkey hunters.

Hunters should do their pre-season scouting and learn as much as possible about the property they are hunting. Always try to set-up with a minimum amount of resistance between you and the gobblin' tom. Gobblers typically do not like to be called down a hill. They very seldom are called into shotgun range across wire fences, wide creeks and rivers.

When a gobbler is high on a ridge, try to get on the same ridge before you start to call. Most often what you can or can't do will be dictated by the landscape. Again know as much as possible about the property you are hunting.

Once you are in position, look for



Denny Quaife

provides movement with even a slight breeze.

Try to position your decoy 20 to 25 yards in front of you. The decoy will very often relax the gobbler, providing the extra edge needed for a clean shot.

Set-Up

Learning to effectively set up on spring gobblers comes with years of hunting experience, and it creates

a tree wider than your back. Sit at the base of the tree to break up your outline. Pull your knees tightly into your body with your shotgun level across them. If you shoot right-handed like I do turn your body so your left shoulder points in the direction you think the bird will come (and vice versa if you shoot left-handed). This will allow you to cover a wide range in front of your set up tree with very little movement.

Basic Safety Tips

Always be safety-minded when spring gobbler hunting. Be totally sure of your target and never shoot before you see the bearded bird.

Each spring hunters are involved in hunting accidents during the gobbler season. Most reports indicate that the hunter was mistaken for a turkey. Common sense plays a major role in our daily lives and when hunting spring gobblers it is each hunter's responsibility to himself and the others who share the spring woods to hunt safely.

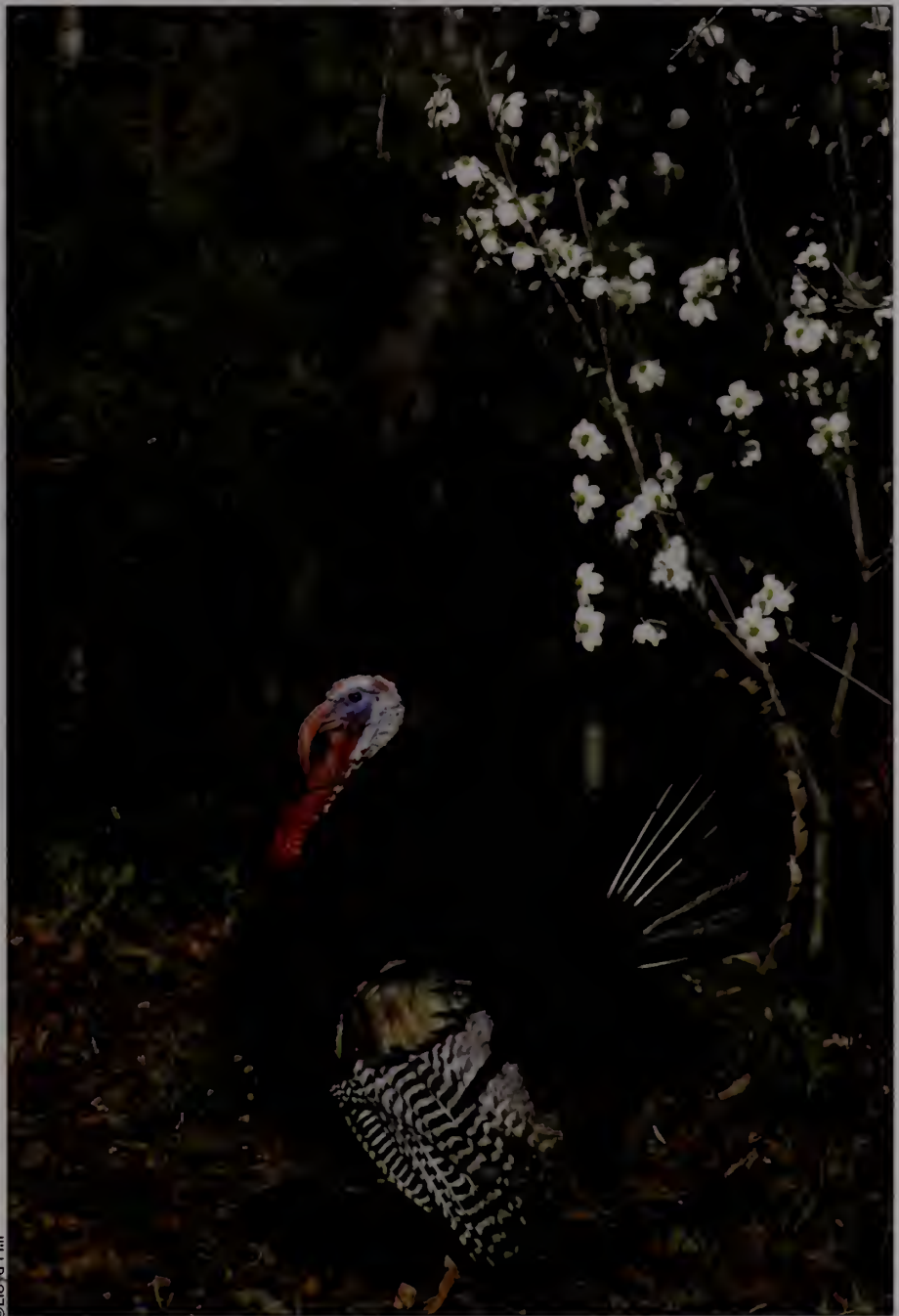
Virginia ranks 12th in the country for total turkeys taken in the spring. This ranking is based on data collected from big game check stations. Some of the other states showing



Decoys can help bring success during spring gobbler season (left, in the background), as can the right call. After taking a turkey, hunters should wear blaze orange on their way back to their vehicle.

higher totals use estimates based on hunter surveys, phone polls, and spot checks for their harvest figures.

Another record harvest was registered in Virginia during the 1996 spring season. The total was 11,694 gobblers taken which represented a 10.3 percent increase over the previous year.



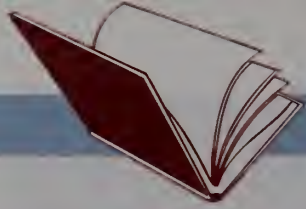
©Lloyd Hill

After talking to deer and fall turkey hunters throughout the state, the upcoming spring season is looking like another winner. Turkey flocks are strong and abundant in the Old Dominion. With a little luck and some good weather, spring gobbler hunters could be looking at another record harvest during the 1997 season.

When talking to the old-timers about hunting long beards, the one

thing that never seems to change is their love for this monarch of the spring woods. A spring gobbler hunter knows anticipation and frustration, but each time he or she hunts, successful or not, the hunter learns something new, and the experience is worthwhile. □

Denny Quaiff is executive director of the Virginia Deer Hunters Association and senior editor of their publication, Whitetail Times.



City Trout

by King Montgomery

The Capital Beltway runs through Virginia and Maryland as it forms a circle around the District of Columbia. It carries almost 200,000 vehicles a day. On its western side, at about 8 o'clock on the circle, is Route 236 (Little River Turnpike) and just below it, Route 620 (Braddock Road), both in Annandale. Accotink Creek flows near the Beltway through a Fairfax County flood plain between the two roads, and it carried 1,252 rainbow and brown trout after its first stocking in early January 1997. Accotink Creek is Virginia's newest Delayed Harvest Regulation trout stream, joining five others throughout the Commonwealth.

Under delayed harvest regulations, anglers may fish the stream from October 1 through May 31, but cannot keep the fish until June 1—hence the term “delayed harvest”—and all fish must be immediately released unharmed during this period. A state fishing license and trout license are required for anglers 16 years and over. On June 1, the creek reverts to a put-and-take fishery. Anglers may keep up to six trout per day, and bait restrictions are lifted. From June 16 to September 30, a state fishing license is needed, but a trout license is not.

Rainbows and browns are stocked from October through May, cooler months with air and water temperatures more conducive to trout survival. As the summer sun warms the creek and the water level falls, stocking stops and fishers are allowed to keep fish for the dinner table. Most of the fish would not survive the summer heat.

Although this is not a pristine, wild trout stream, it is a pretty and

pleasant place in a heavily built-up area. In a way, it reminds us of the way things used to be before we had to cover the land with asphalt and housing developments. Now, thanks to forward-looking and innovative fisheries managers, city and suburban dwellers have a nice, quiet place nearby to catch a few trout. □

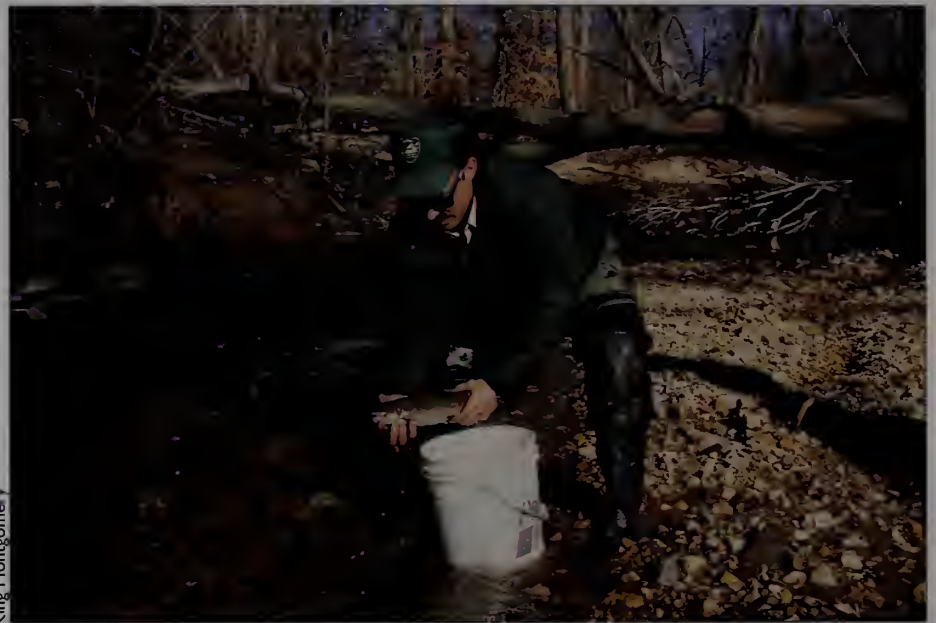
Tracking Walleyes

by Spike Knuth, Information Officer

Modern micro-electronics are enabling biologists to carry on some fascinating research on birds, mammals, reptiles, and now fish. Fisheries Biologist, Tom Hampton, has begun implanting ultrasonic transmitters in walleyes in John W. Flannagan Reservoir, in Dickenson County. The goal of the project is to determine the seasonal habitat preferences and daily and seasonal movements of walleyes. Hampton explains that there is a strong population of walleyes of excellent sizes

in Flannagan but few are being harvested by anglers. The information gleaned by the project would help anglers to better utilize an abundant resource by providing information on where the fish are and how they move.

The transmitters, which are about the size of a tube of Chap Stick®, are surgically implanted into the body cavity of the walleye, according to Hampton. “A two centimeter incision is made, the transmitter is implanted, then later closed with surgical staples,” he said. “To track the ‘tagged’ fish, we use a digital receiver which picks up the transmitter’s signal and measures the time between signals. Because the transmitters are ultrasonic rather than radio, we use a hydrophone instead of antenna. To check a fish’s location we must stop the boat and place the hydrophone underwater. Location and water temperature can be detected which allows biologists to calculate the depth the fish are at.” To determine the depth of a tagged fish, biologists compare the tag temperature



King Montgomery

to a surface to bottom profile of water temperatures in the lake. From this information, seasonal locations and movement habits can be traced. Hampton also hopes to find out if walleyes are running upriver to spawn in spring, or if they are spawning on rocky shorelines in the lake.

Early in 1996, a transmitter was implanted in a walleye as a test, and it was monitored for a 24 hour period. It was found that the fish moved a mile and a half within the 24 hours with most of its movement between 8:00 p.m. and 8:00 a.m. the next morning. It's long been known that walleyes are nocturnal, so the period of highest activity was no surprise. However, the 1 1/2 mile distance traveled was somewhat of a surprise, although in native waters walleyes will migrate great distances to spawn. Among the other findings was that this particular fish preferred water temperatures between 64 degrees to 71 degrees, and depths of 28 to 48 feet.

Of course, the findings from a single fish are inconclusive, so 11 other transmitters are scheduled to be implanted. The study is being conducted on the Flannagan Reservoir because it had the highest catch rate by biologists during gill net sampling. Flannagan is a deep, clear body of water, so companion studies are being considered on lakes with completely different physical characteristics. Hungry Mother Lake, in Hungry Mother State Park, in Smyth County, has a good population of walleyes too, but has a maximum depth of only 30 feet, often lacking oxygen from the surface to 15 feet down, and is a dingy gray-green in color. This part of the study will compare habitat-use by walleyes in different lakes around the state. □

Two Recognized for Law Training Efforts

Mr. Jerry Hoffman and Mr. Jerry Smith receive recognition for their efforts in promoting training opportunities for the officers of the Law



Enforcement Division. Lt. Keith Harver, District Supervisor (left) and Lt. Bobby Mawyer, Training Supervisor, presented a plaque of appreciation and a letter from Director Bill Woodfin, who also praised their efforts.

For the past several years, Mr. Hoffman and Mr. Smith have allowed division personnel access to

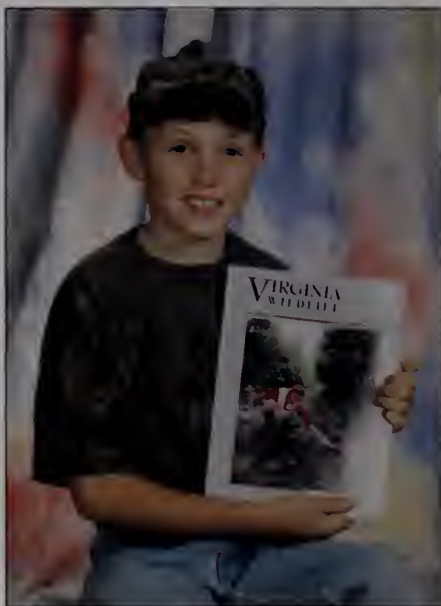
firearms and driver training facilities. "It is only with this type of cooperation that the Department is able to provide its officers with the caliber of training necessary to work toward the goals of the agency," said Lt. Mawyer.

Jerry Hoffman and Jerry Smith operate a private training facility in the West Point area. □



Rich Jefferson

This year the Virginia Wildlife Federation (VWF) is celebrating 50 years as a Virginia conservationist association. Pictured here, at the VWF legislative reception, are President L. Edward Tillett (left) and William L. Woodfin, Jr., director of the Virginia Department of Game and Inland Fisheries.



Letter to the Editor

My 9 year old son is an avid fan of hunting. The last two Christmases, he has only wanted hunting clothes and things to use in hunting.

Just prior to Christmas of last year, I placed a call to the Department and ordered *Virginia Wildlife* for him. The lady was most kind and sent several back issues that I wrapped and put under the tree.

This year, the kids were allowed to dress for their school picture as they wished.

Thanks for the joy my son has had with such a great magazine.

Stuart B. Fallen,
Charlotte County

©Dwight Dyke



Operation Spruce-Up

The third annual Operation Spruce-Up, the statewide spring-cleaning program that helps keep Virginia beautiful, is scheduled for April.

Operation Spruce-Up celebrates Virginians working outdoors to improve, conserve and to "spruce up" their natural resources.

"Citizens and service groups across the Commonwealth will be encouraged to help clean up winter's debris, plant trees, shrubs, flowers and gardens, maintain trails, undertake light repairs and construction projects, develop or improve wildlife habitat, and generally help restore our resources for their spring blooming," said Becky Norton Dunlop, Secretary of Natural Resources.

The campaign will encourage these kinds of stewardship activities in neighborhoods and communities, such as local parks, and also facilities such as wildlife management areas, state parks, and natural areas.

The agencies of the Natural Resources Secretariat and other agencies will participate in these efforts, and the Governor again will honor participants with personal certificates of recognition.

For additional information about Operation Spruce-Up call 1-800-592-5482. To find out how you can get involved with the Virginia Department of Game and Inland Fisheries' Operation Spruce-Up projects, contact Charlie Sledd at (804) 367-6481 or by e-mail at csledd@dgif.state.va.us. □

Earlybird Specials for Hummingbirds

"April 7, 1991. Hummingbird in Sandston." Soldiers scanning the skies for enemy aircraft are no more watchful than backyard bird lovers awaiting the appearance of the first hummingbird each spring. The preceding observation wasn't even my own, but I recorded it in my journal because I was so envious of the friend who reported it to me. The earliest I've ever heard of a ruby-throated hummingbird being spotted in Virginia is the end of February—a friend of a friend of a friend says he saw one in Clarksville then, but who knows how reliable that third-hand report is. Rachel Anderson knows for sure the earliest hummingbird she ever saw appeared on April 9. She remembers it so well because the bird headed straight for her head and tried to nectar at her pink curlers! Most first-hummingbird sightings occur around the end of March or during the first two weeks of April (males usually precede the females by a couple of weeks), but you can increase your chances of an early sighting—and provide a service to hummingbirds—by growing some of the early-blooming flowers they enjoy.

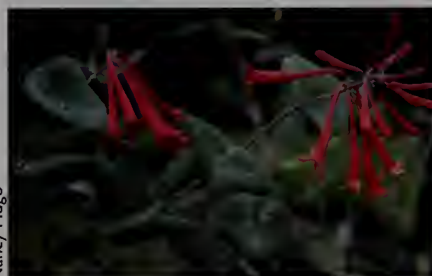
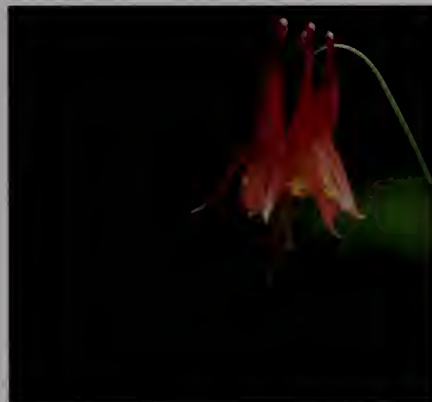
According to wildlife specialist John Dennis, hummingbirds time their flights north from the tropics to coincide with the blooming of plants that provide them nectar. In Virginia, some of the early-bloomers that provide hummingbirds nectar include flowering quince, wild azaleas, coral honeysuckle, columbine, red buckeye, and Virginia bluebells. Hummingbird enthusiast Joe Lively has even seen hummingbirds nectaring at henbit, the prolific little weed that pops up in lawns and gardens. Hummingbirds also eat insects and spiders, and Lively says they'll follow woodpeckers around looking for both the sugary sap that rises after the woodpeckers drill their holes and the small insects that

sometimes get stuck in it, but nectar-rich flowers suit these high-energy birds best.

Two of our most beautiful native plants that attract hummingbirds and provide them the early food they need are columbine and trumpet honeysuckle. *Aquilegia canadensis*, Virginia's only native columbine, has red flowers with yellow underpinings—a combination that is as attractive to hummingbirds as it is to human observers. Columbine's dangling corolla has long, reflexed spurs, and it is in the tips of these spurs, where only hummingbirds and a few enterprising insects can reach it, that the flower's nectar is held. Both the columbine's flowers and light green leaves look delicate, but the plant is easy to grow and will grow in even difficult spots, like the dry shade under trees. "Rock bells," one of the columbine's common names suggests one of the habitats it likes best—rock cliffs and ledges where the soil is thin and well-drained. Many nurseries offer these plants, or they can be grown from seed. Columbine's shiny black seeds form in papery follicles that follow the flowers, and they will sprout where they drop (or where you plant them), usually in the fall or spring following the summer when they hit the ground.

Coral or trumpet honeysuckle (*Lonicera sempervirens*) is another hummingbird magnet that is as welcome in the most discriminating garden as it is in a wildlife habitat. Don't confuse this dramatic, red-to-orange-flowered honeysuckle with the invasive Japanese honeysuckle, *L. japonica*, or with trumpet vine, *Campsis radicans*. Although in some places it will need to be restrained, our native coral honeysuckle is nowhere near as aggressive as either Japanese honeysuckle or trumpet vine. Because of its ornamental value, many nurseries carry coral honeysuckle, or, if you're lucky, you

might find someone who has coral honeysuckle growing on his or her property who is willing to share some. It blooms best in full sun and will thrive in almost any soil although it prefers well-drained, acid soil enriched with leaf mold.



Top: Columbine (*Aquilegia canadensis*) Above: Coral honeysuckle (*Lonicera sempervirens*).

If the arrival of the first hummingbird is something you look forward to, I'd recommend both of these plants, because not only do they satisfy the appetites of hummingbirds, they provide a feast for the eyes. □

Sources: Both coral honeysuckle and native columbine plants are available by mail order from We-Du Nurseries, Route 5, Box 724, Marion, North Carolina 28752. (Phone 704-738-8300, fax 704-738-8131) or from some neighborhood nurseries. Many mail order seed catalogs, including Park Seed (864-223-7333) and Thompson & Morgan (800-274-7333) carry seeds of Virginia's native columbine (*Aquilegia canadensis*).

Photo TipS

By Lynda Richardson

Reflecting on Mirrors

How many times have you heard, "I only shoot in early morning or late evening to capture the best, most glorious light of the day." Well, in a perfect world I suppose we could all try to do that. But sometimes the only opportunity one has for photography is during a lunch break, after the kids have gone to school or on weekends between soccer games. And usually, when these opportunities present themselves, the sun is already into its upward climb, drowning color while dragging harsh shadows across the land. It might not be the best time to shoot, but a few secrets can help.

Whenever I have to shoot scenics during the middle of the day, I pray for clouds. Clouds act like huge diffusion filters, smoothing the sun's rays into soft, even light. It might be tedious to have to wait for each passing cloud to block the sun but your results will be better. Overcast days present the best light for noon shoots in that you don't have to wait for passing clouds to snap your pictures. And various films, such as Fuji Velvia, really excel in overcast conditions recording color vibrantly and adding contrast to the final image.

If clouds are not in your noonday forecast then you'll have to think small. While traveling with a group of photographers in South Africa, we visited an ocean side bird rookery. Light wise, it was the most miserable time of the day. Heavy shadows draped around our bright, white subjects. We didn't have a lot of time at this location so I pondered the use of fill-flash to light my shadowy subjects.

The leader watched me for awhile and asked why I wasn't taking any pictures. As I explained my

concern, his face lit up and without another word he turned and ran down the road towards a nearby town. Puzzled, I turned my attention back to fill-flashing a few birds and after awhile I began to feel comfortable that I was getting some interesting images. It was about that time that I began to notice bright flashes moving back and forth across the rookery.

Looking around I spotted the leader walking towards me holding a large mirror which he had apparently "borrowed" from a nearby hotel. He nodded down at the mirror and angled it to catch the hot sun and reflect it's rays onto a nearby rock. As I watched it dawned on me that the mirror made a great fill-flash which is exactly why he had tracked it down. "I never had access to a flash for my camera so I had to make due," he smiled watching my reaction to his demonstration.

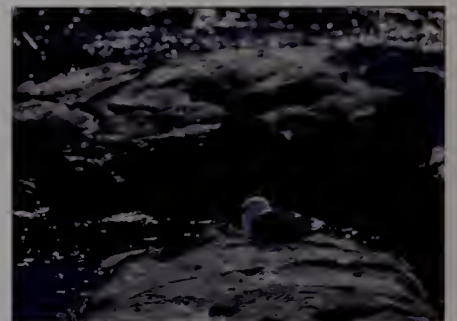
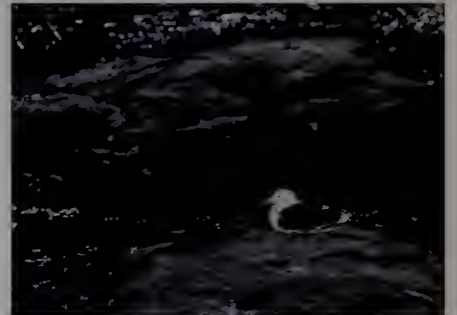
Since that day, I have used mirrors in various fill "flash" applications. Cosmetic compacts have aided me in photographing delicate flowers. Large, nearly indestructible, plexiglass mirrors have channeled rays of the sun under logs 25 yards away to light up snoozing alligators. And if the mirror's cool light is too much for me, I simply wrap it with a piece of yellow theatrical gel, normally associated with backstage lighting, and I have warm light beaming on my subject.

The secret to using mirrors is the angle of the mirror compared to the sun, the camera, and the subject. First, the camera is aimed directly at the subject and the mirror is angled to capture the sun. If the mirror can then be positioned approximately 45 degrees from the subject and still direct the sun's light onto that subject,

then it should work perfectly. If you draw a line from mirror to subject to camera to mirror you should have a triangle. With a little practice, you'll get the hang of it.

Be aware that when combining sunlight with the use of mirrors you are using a combination that can start fires! Always keep this in mind and plan to shoot briefly, tilting the mirror off the subject periodically.

On your next noon day photo excursion, take a mirror along for the ride. If nothing else, you can look into it and see how much fun you're having. □



*Top: Harsh, mid-day sun is the worst light for taking pictures. A mirror can sometimes salvage the moment under the right circumstances as it did with this final photograph of a Kelp gull in South Africa (above).
Photos ©Lynda Richardson.*

By Joan Cone

Meals You Can Carry

For anyone who enjoys backpacking, canoeing or hiking, tasty and nutritious meals are essential! A newly published book, *The Back-Country Kitchen*, by Teresa Marrone, an experienced hunter, fisherman, and backpacker, is indispensable. There is a special chapter which includes recipes for freshly caught fish and for preparing gamebirds and venison in a back-country hunting camp.

Following are recipes from *The Back-Country Kitchen* for breakfast, lunch and dinner.

Grits with Egg and Cheese

An easy breakfast that's surprisingly hearty and filling. Pack individually bagged portions in a larger plastic bag or combine two or more portions in a single bag.

Place in a small plastic bag and seal with a twist-tie:

- 3 tablespoons quick-cooking grits (not instant grits)
- 1 teaspoon shelf-stable grated Parmesan cheese
- $\frac{1}{8}$ teaspoon Butter Buds
- $\frac{1}{8}$ teaspoon salt

Carry separately:

- 1 whole raw egg

At camp:

For 1 or 2 servings, use a small pot; for 3 or more servings, a medium to large pot works best. A diffuser plate helps prevent scorching. Boil 1 cup water per serving. Add mix. Cook, stirring frequently, for 3 minutes; mixture will be somewhat thickened. Add one egg per serving. Cover pot and reduce heat to simmer. Cook for 2 minutes. Remove from heat and let stand another minute; yolks should still be runny. Per serving.

Clam Chowder (For lunch)

You can substitute canned smoked oysters for the clams in this recipe to create a tasty Smoked Oyster Chowder.

Combine in pint plastic zipper bag:

- 1 package (.9 ounces) Knorr mushroom sauce mix (not gravy mix)
- $\frac{1}{2}$ cup instant mashed potato flakes
- 3 tablespoons Knorr onion soup mix (half of a 1.4-ounce package)
- 1 tablespoon nonfat dry milk powder
- 1 tablespoon dried cooked bacon pieces or bacon-flavored bits
- 2 teaspoons Butter Buds
- $\frac{1}{2}$ teaspoon crumbled dried parsley leaves
- $\frac{1}{4}$ teaspoon black pepper

Carry separately:

- 1 can (6.5 ounces) chopped clams in clam juice
- Oyster crackers or saltines, optional

At camp:

In medium pot, boil 3 cups water. Add mix, and clams with the clam juice. Stir thoroughly. Cover and return to boiling. Reduce heat and simmer, stirring occasionally, about 10 minutes. Serve with oyster crackers. Serves 2 or 3.

Macaroni with Cheese Sauce (For lunch or dinner)

Place in a small plastic bag and seal with a twist tie:

- $\frac{1}{4}$ cup shelf-stable grated Parmesan cheese
- 1 tablespoon nonfat dry milk powder
- 2 teaspoons all-purpose flour
- 1 teaspoon Butter Buds
- $\frac{1}{8}$ teaspoon salt
- A pinch of nutmeg
- A pinch of cayenne pepper

Place in another plastic bag:

- $1\frac{1}{4}$ cups macaroni
- Small sealed bag with the sauce mix

At camp:

In medium pot, boil $1\frac{3}{4}$ cups water. Add macaroni and cook over medium-high heat, stirring frequently to prevent sticking, until just tender. There should be some water left in the pan. Stir sauce mix and cook over medium-low heat, stirring constantly, until sauce is thick and creamy, about 1 minute. Per serving.

Billy's Fish With Corn (For dinner)

For each serving you'll need:

- 18" square of heavy-duty foil
- 1 generous tablespoon butter or margarine, divided
- $\frac{1}{4}$ cup drained canned "fiesta" corn
- A generous pinch of crumbled dried thyme leaves
- A generous pinch of salt
- A generous pinch of black pepper
- A small pinch of cayenne pepper, optional
- Fresh fish fillets, 4 to 5 ounces per serving

At camp:

Light charcoal grill or start campfire. When coals are almost ready, prepare the fish: skin fillets and remove ribs and any bones. Cut into individual serving-sized pieces if necessary. (If you have a 1-pound fish, one side will generally yield one serving. The fillets from a 2 pound fish should be cut into 2 servings per side. Small fish won't need to be cut up.) Set aside. For each serving, lay a piece of fish, shiny side up, on a flat surface. Place half of the butter on the foil. Place the fish piece on top of the butter. Sprinkle the drained corn over the fish. Sprinkle with thyme, salt, pepper and cayenne. Top with remaining butter. Fold sides of foil over the fish, using a drugstore wrap. Roll the ends of the foil in securely. Repeat with remaining fish and other ingredients.

Place the wrapped packets, corn side up, on a grate over prepared campfire coals or charcoal grill. Cook for 5 to 7 minutes; you should hear the butter sizzling several minutes before you turn it. Flip the foil packets and cook the second side for another 5 minutes or so. To serve, carefully open the packet and serve directly from the foil or transfer fish, corn and all juices to individual plate for serving. Per serving.

The Back-Country Kitchen by Teresa Marrone was published by the North Trails Press, Box 19296, Minneapolis, MN 55419, \$14.95 + \$2 shipping.

APRIL AFIELD

by Jack Randolph

Not many bewhiskered, camouflaged gunners will admit it, but a great deal of the lure of the spring turkey hunt is its beauty. Certainly, the woods in autumn are beautiful, too, but generally only the early hunters—the bowhunters and blackpowder boys—get to enjoy it. Most of the leaves have fallen by the time most of us take to the woods, but spring is a different matter.

It's difficult to believe, but the spring hunt is less than 30 years old in Virginia. Before then there were few of us in the woods to enjoy the gentle blending of filmy wisps of white dogwood with a blush of red bud and the bright green of newly born leaves. Nor, did we see the riot of wildflowers that cover the forest floor in such variety that we wish we knew more about their names and herbal value.

But this is not a silent beauty. As we strain our ears to hear the distant gobble of an amorous turkey we must sort through the early hoots of a barred owl, followed later by the morning clamor of rising crows and the growing crescendo of thousands of lesser voices each singing its own melody and all together creating a cacophony of natural music that awakens in us feelings that we are seldom aware we have. When, amid all of nature's beauty comes the crash of a distant shotgun, even the most avid among us consider it to be a rude interruption of a morning that somehow has a higher calling.

Yet, it really is the hunt that binds it all together for us. If the truth were out, most of our morning turkey hunts do not result in turkey dinners, but all of them write a new page in the adventures of our lives. And when on one particular morning all things work out and a tom turkey struts within the range of your shotgun, before you shoot, look at the majestic bird. Set its

image forever in your mind because that instant before the shot is the true trophy of the hunt—the one that will remain forever in your mind.

Also, for whatever it is worth, those of us who wait for and relish the sight of a wild turkey in the woods, will never ever mistake another hunter or anything else for a wild turkey.

However, the high adventure of the spring gobbler hunt is only a small part of the sportsman's April. April is also the month of the return of shad and herring to our tidal streams, of huge bass, blue catfish and delicious flounder. It's a month of tautogs and croakers, or bluefish and crappie. April is the month the landlocked stripers make their spawning runs and when white perch crowd into the upper reaches of the tidal rivers.

The white or American shad in the Chesapeake Bay and its tributaries enjoys total protection again this year. This protection, however, does not extend to the Meherrin and Nottoway rivers which are not tributaries of the bay, nor does it extend to the hickory shad that appear in the Rappahannock at Fredericksburg and the Appomattox at Petersburg this month. Also, eagerly awaited is the return of river herring, particularly the herring run at Walkers Dam on the Chickahominy River where thousands are caught by anglers using nothing more than gold hooks. Of course, dip netters will line the smaller tidal creeks at night to collect their share of the river herring.

By the first week of this month flounders should be present in strength along the ocean side of the Eastern Shore from Chincoteague and Wachapreague to Oyster and Quinby. Tautogs are now biting along the Bridge Tunnel and croakers have returned to the bay, first ap-

pearing in the nets, but commencing to take a baited hook around the piers and in the York and Rappahannock rivers later in the month. Sea mullet, blowfish, and skates will also be showing up in the catches from the piers.

April is also the month when huge, roe-laden largemouth bass are caught at Briery Creek Lake and Lake Conner as anglers take another run at breaking the state record for largemouth bass which currently stands at 16 ¼ pounds. Briery Creek Lake bass have come close to the record in recent years and many anglers have no doubt that a record-breaker is to be found there. Also, such waters as Lake Chesdin, Lake Anna, Lake Gaston, Buggs Island Lake and the Chickahominy will also produce good numbers of big bass, but probably not of record proportions.

The only successful spawning run of landlocked striped bass takes place this month on the Staunton River as stripers from Buggs Island Lake spawn there. In other waters landlocked striped bass attempt to spawn, but are not successful because of insufficient water flows. On Smith Mountain Lake, striped bass congregate in the Cedar Key area where they are vulnerable to illegal snagging. In this area the use of artificial lures or weighted hooks is not permitted between April 15 and May 31 of each year.

April is also the time when excellent catches of white perch are made in the James River below the I-95 Bridge and in the Rappahannock below the Route 1 bridge in Fredericksburg. It is also the time the big blue catfish are on the prowl in these same rivers.

April is really spring's portal. By the time the month changes from reality to memories the door of spring has swung wide open. □

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